National Institute of Environmental Health Sciences

The effects of extreme heat on human mortality and morbidity in Australia: Implications for public health

Author(s): Bi P, Williams S, Loughnan M, Lloyd G, Hansen A, Kjellstrom T, Dear K, Saniotis A

Year: 2011

Journal: Asia-Pacific Journal of Public Health / Asia-Pacific Academic Consortium for Public Health. 23 (2 Suppl): 27S-36

Abstract:

Most regions of Australia are exposed to hot summers and regular extreme heat events; and numerous studies have associated high ambient temperatures with adverse health outcomes in Australian cities. Extreme environmental heat can trigger the onset of acute conditions, including heat stroke and dehydration, as well as exacerbate a range of underlying illnesses. Consequently, in the absence of adaptation, the associated mortality and morbidity are expected to increase in a warming climate, particularly within the vulnerable populations of the elderly, children, those with chronic diseases, and people engaged in physical labour in noncooled environments. There is a need for further research to address the evidence needs of public health agencies in Australia. Building resilience to extreme heat events, especially for the most vulnerable groups, is a priority. Public health professionals and executives need to be aware of the very real and urgent need to act now.

Source: http://dx.doi.org/10.1177/1010539510391644

Resource Description

Early Warning System:

resource focus on systems used to warn populations of high temperatures, extreme weather, or other elements of climate change to prevent harm to health

A focus of content

Exposure :

weather or climate related pathway by which climate change affects health

Temperature

Temperature: Extreme Heat

Geographic Feature:

resource focuses on specific type of geography

Tropical, Urban

Geographic Location:

resource focuses on specific location

Non-United States

Non-United States: Australasia

Health Co-Benefit/Co–Harm (Adaption/Mitigation):

specification of beneficial or harmful impacts to health resulting from efforts to reduce or cope with greenhouse gases

A focus of content

Health Impact:

specification of health effect or disease related to climate change exposure

Cardiovascular Effect, Mental Health/Stress, Morbidity/Mortality, Respiratory Effect, Urologic Effect

Cardiovascular Effect: Other Cardiovascular Effect

Cardiovascular Disease (other): cardiovascular mortality

Mental Health Effect/Stress: Other Mental Disorder

Respiratory Effect: Other Respiratory Effect

Respiratory Condition (other) : respiratory mortality

Intervention:

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Mitigation/Adaptation:

mitigation or adaptation strategy is a focus of resource

Adaptation

Model/Methodology:

type of model used or methodology development is a focus of resource

Exposure Change Prediction, Outcome Change Prediction

Population of Concern: A focus of content

Population of Concern:

populations at particular risk or vulnerability to climate change impacts

Children, Elderly, Low Socioeconomic Status, Workers

Other Vulnerable Population: people with pre-existing chronic disease

Resource Type:

format or standard characteristic of resource

Review

Resilience: ☑

capacity of an individual, community, or institution to dynamically and effectively respond or adapt to shifting climate impact circumstances while continuing to function

A focus of content

Timescale: ☑

time period studied

Medium-Term (10-50 years)

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content